

CLAIMS

1. A database management system, comprising:
a processor associating lock durations with different activities in a transaction and
maintaining locks for the duration of the activities and then releasing the locks when the
activities are completed.

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2. A database management system according to claim 1 wherein one of the
activities includes a sort operation and the processor activates locks for each separate sort
operation and releases the locks when the individual sort operations are completed.

15 3. A database management system according to claim 1 including a memory
containing an activity bit map that tracks individual activities for the transaction, the
processor assigning activity identifiers to the activities according to the activity bit map.

20 4. A database management system according to claim 1 wherein the processor
associates the activities with lock modes and releases the lock modes on data items when the
associated activities are finished.

25 5. A method for locking data items in a database management system,
comprising:
associating lock durations with different activities in a transaction;
maintaining locks for the duration of the activities; and
releasing the locks when the activities are completed.

- 5 6. A method according to claim 5 including:
 identifying different sort activities for the same transaction;
 activating locks on data items associated with the sort activities; and
 releasing the locks on the data items when the associated sort activities are completed.
- 10 7. A method according to claim 5 including:
 maintaining an activity bit map that tracks individual activities for the transaction; and
 assigning activity identifiers to the activities according to the activity bit map.
- 15 8. A method according to claim 1 including associating the activities with lock
 modes and releasing the lock modes on data items when the associated activities are finished.